

IN THE CLAIMS:

1. (Currently amended) An electrical connector for aircraft fuel pumps,  
comprising:

a cup-shaped connector shell, having opposing first and second ends, the first end being closed and the second end being open, and an outer radial connector flange at the first end;

an insulating plug mounted in the first end of said cup-shaped connector shell, said insulating plug having an open side;

a plurality of tubular risers mounted to said open side of said insulating plug at ~~said first end of said connector shell~~, each of said plurality of tubular risers having a base portion mounted to said insulating plug and an outer end portion extending from said first end of said connector shell open side of said insulating plug;

a plurality of connector pins mounted in said insulating plug and extending longitudinally through corresponding ones of said plurality of tubular risers, through said connector shell, and each having a portion extending from said corresponding tubular risers at the first end of said connector shell; [[and]]

a plurality of electrical cables connected to corresponding ones of said plurality of connector pins, respectively; and

at least one layer of insulating tubing covering a portion of each said outer end portion of said plurality of tubular risers, said at least one layer of insulating tubing covering each said portion of said plurality of connector pins extending from said

corresponding tubular risers, and corresponding electrical cables, and leaving an open portion of said base portion of each said tubular riser open and uncovered, whereby contaminants can escape or be removed from said open portion of said tubular risers of said electrical connectors.

2. (Cancelled)

3. (Original) The electrical connector of Claim 1, wherein said cup-shaped connector shell comprises a one piece connector shell.

4. (Original) The electrical connector of Claim 1, wherein said cup-shaped connector shell is formed from a corrosion resistant metal.

5. (Original) The electrical connector of Claim 1, wherein said cup-shaped connector shell is formed from stainless steel.

6. (Original) The electrical connector of Claim 1, wherein said cup-shaped connector shell is formed from corrosion resistant steel.

7. (Original) The electrical connector of Claim 1, wherein said cup-shaped connector shell is configured to increase the distance between connector pins and

grounded portions of the shell to thus increase the electrical current leak path length to prevent arcing from occurring.

8. (Previously presented) The electrical connector of Claim 1, wherein said insulating plug is formed of glass and forms a hermetic seal of the first end of said cup-shaped connector shell.

9. (Original) The electrical connector of Claim 1, wherein said plurality of tubular risers are formed from an electrically insulating ceramic material.

10. (Original) The electrical connector of Claim 1, wherein each of said connector pins comprises a solder cup at said first end of said connector shell for receiving a corresponding electrical cable.

11. (Original) The electrical connector of Claim 2, wherein said at least one outer layer of insulating tubing comprises heat shrunk tubing.

12. (Original) The electrical connector of Claim 11, wherein said at least one outer layer of insulating tubing comprises cross-linked fluoropolymer tubing.

13. (Original) The electrical connector of Claim 1, wherein said insulating plug is made of glass.

14. (Original) The electrical connector of Claim 11, wherein said at least one outer layer of insulating tubing comprises two layers of heat shrunk tubing.

15. (Currently amended) The electrical connector of Claim 1, further comprising at least one insulating tubular extension disposed over said at least one outer layer of insulating tubing, said outer end portion of said plurality of tubular risers ~~corresponding one of at least one of said risers extending from said first end of said connector shell,~~ each said corresponding one of said portion of said connector pins extending from said corresponding tubular risers ~~at the first end of the connector shell,~~ and said corresponding ~~one of said plurality of electrical cables, and leaving said open portion of said base~~ portion of each said tubular riser open and uncovered, whereby contaminants can escape or be removed from said open portion of said tubular risers of said electrical connectors.

16. (Currently amended) An electrical connector for aircraft fuel pumps, comprising:

a unitary cup-shaped connector shell, having opposing first and second ends, the first end being closed and the second end being open, and an outer radial connector flange at the first end;

an insulating plug mounted in the first end of said cup-shaped connector shell, said insulating plug having an open side;

a plurality of tubular risers mounted to said open side of said insulating plug at said first end of said connector shell and each of said plurality of tubular risers having a base portion mounted to said insulating plug and an outer end portion extending from said first end of said connector shell open side of said insulating plug;

a plurality of connector pins mounted in said insulating plug and extending longitudinally through corresponding ones of said plurality of tubular risers, through said connector shell, and each having a portion extending from said corresponding tubular risers at the first end of said connector shell;

a plurality of electrical cables connected to corresponding ones of said plurality of connector pins, respectively; and

at least one layer of insulating tubing covering a portion of each said outer end portion of said plurality of tubular risers, said at least one layer of insulating tubing covering each said portion of said plurality of connector pins extending from said corresponding tubular risers, and corresponding electrical cables, and leaving an open portion of said base portion of each said tubular riser open and uncovered, whereby contaminants can escape or be removed from said open portion of said tubular risers of said electrical connectors.

17. (Cancelled)

18. (Original) The electrical connector of Claim 16, wherein said cup-shaped connector shell is formed from a corrosion resistant metal.

19. (Original) The electrical connector of Claim 16, wherein said cup-shaped connector shell is configured to increase the distance between connector pins and grounded portions of the shell to thus increase the length of any potential electrical current leak path that could cause arcing.

20. (Original) The electrical connector of Claim 16, wherein said insulating plug is formed of glass and forms a hermetic seal of the first end of said cup-shaped connector shell.

21. (Original) The electrical connector of Claim 16, wherein said plurality of tubular risers are formed from an electrically insulating ceramic material.

22. (Original) The electrical connector of Claim 16, wherein said at least one outer layer of insulating tubing comprises heat shrunk tubing.

23. (Currently amended) The electrical connector of Claim 16, further comprising at least one insulating tubular extension disposed over said at least one outer layer of insulating tubing, said outer end portion of said plurality of tubular risers ~~corresponding one of at least one of said risers extending from said first end of said connector shell,~~ each said ~~corresponding one of said~~ portion of said connector pins extending from said corresponding tubular risers ~~at the first end of the connector shell,~~

and said corresponding ~~one of said plurality~~ of electrical cables, and leaving said open portion of said base portion of each said tubular riser open and uncovered, whereby contaminants can escape or be removed from said open portion of said tubular risers of said electrical connectors.